

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
19 May 2005 (19.05.2005)

PCT

(10) International Publication Number  
**WO 2005/044340 A1**

(51) International Patent Classification<sup>7</sup>: **A61M 1/36**

(21) International Application Number:  
PCT/EP2004/012277

(22) International Filing Date: 29 October 2004 (29.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03025640.8 7 November 2003 (07.11.2003) EP  
03026854.4 24 November 2003 (24.11.2003) EP  
03026855.1 24 November 2003 (24.11.2003) EP

(71) Applicant (for all designated States except US): **GAMBRO LUNDIA AB** [SE/SE]; Magistratsvägen 16, S-22643 Lund (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DANNENMAIER, Jürgen** [DE/DE]; Grünenwaldstrasse 88, 72336 Balingen (DE). **GOEHL, Hermann** [DE/DE]; Rosengarten 2,

72406 Bisingen (DE). **ERTL, Thomas** [DE/DE]; Marienburgstrasse 56, 72406 Bisingen (DE). **CHEVALLET, Jacques** [FR/FR]; 8 route de Ternay, F-69360 Serezin du Rhône (FR). **RIBOLZI, Francesco** [IT/IT]; via Camatta 1, I-41100 Modena (IT).

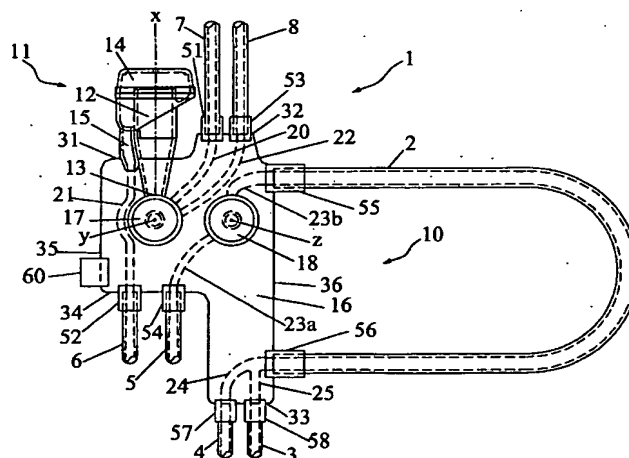
(74) Agent: **LEJEUNE, Daniel**; Gambro Patent Department, 61, avenue Tony Garnier, F-69007 Lyon (FR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

[Continued on next page]

(54) Title: FLUID DISTRIBUTION MODULE AND EXTRACORPOREAL BLOOD CIRCUIT INCLUDING SUCH A MODULE



(57) Abstract: A fluid distribution module (1) for causing and monitoring the circulation of fluids from and to a patient through an extracorporeal blood treatment device, comprises a degassing device (11) connected to a connecting structure (10). The degassing device (11) comprises a first chamber (12) having a lower inlet (13) for a liquid and a second chamber (14) having an upper opening (79) closed by a hydrophobic membrane (78) and an outlet (15) for discharging the liquid. The connecting structure (10) has at least a first and a second conduits (20, 21) defined therein, wherein the first conduit (20) comprises a first end for connection to a discharge tube (7) from the treatment device and a second end connected to the inlet (13) of the first chamber (12) of the degassing device (11), and the second conduit (21) comprises a first end connected to the outlet (15) of the second chamber (14) of the degassing device (11) and a second end for connection to a blood return tube (6) to a patient.



SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ,*

*BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

**Published:**

- *with international search report*  
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*